

the metal gasket through the mediation of the afore-mentioned sensor base, and at the same time stiffness of the structural component directly above the metal gasket to hold the afore-mentioned hermeticity is relatively raised, thus suppressing the strain of the mass flow rate sensor part and the pressure sensor part caused by thrusting said metal gasket.

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### Summary

The present invention is to provide a corrosion-resistant metal made sensor for fluid and a fluid supply device for which the sensor is employed. This has made it possible that the corrosion resistance of a thermal type mass flow rate sensor is raised, and also that the measurement accuracy to the pressure changes is stabilized, its responsivity is enhanced, particle-free is achieved, unevenness in product quality is prevented, and the pressure is measured.

Concretely, the corrosion-resistant metal made sensor for fluid is equipped with a corrosion-resistant metal substrate 2, a mass flow rate sensor part 1 comprising a corrosion resistant metal substrate 2, a thin film forming a temperature sensor 3a and a heater 3b mounted on the back face side of the fluid contacting surface of said corrosion-resistant metal substrate, and a pressure sensor part 4 comprising a thin film forming a strain sensor element 4a mounted on the back face side of the fluid contacting surface of the corrosion-resistant metal substrate 2, and it is so constituted that the mass flow rate and pressure of the fluid are measured.

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